Review Sheet - Unit 2: Cycles Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Atoms & Molecules:*

1. How is an atom similar to a molecule? How are they different?
2. Complete this analogy… Molecule:Atom::Train: \_\_\_\_\_\_\_\_\_\_\_\_ Explain your reasoning.
3. Is water an atom or a molecule? Explain.

*Water Properties*

1. Why is water called the universal solvent?
2. How is a solute similar to a solvent? How are they different?
3. What is the difference between a polar molecule and a non-polar molecule?
4. What happens to the density of water when it freezes? Why is this important to animals that live in water?
5. What does it mean when people say that water has a “high heat capacity”?
6. Why is a high heat capacity important to our environment?
7. Is surface tension caused by adhesion or cohesion? Explain your answer.

*Hydrologic Cycle*

1. Draw a diagram of the water cycle in action.
2. What is the difference between evaporation and transpiration?
3. Where does water spend the most time during the water cycle? Where does it spend the shortest amount of time?
4. What is more important to plants, infiltration or precipitation? Explain.

*Carbon Cycle*

1. What processes in the carbon cycle add carbon dioxide into the atmosphere?
2. What processes in the carbon cycle take carbon out of the atmosphere?
3. Name two places where carbon is stored for long periods.

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1. Why is the carbon cycle sometimes called the carbon-oxygen cycle?

*Biogeochemical Cycles*

1. What other elements or compounds also are cycled through the earth?
2. What is the law of conservation of matter?
3. How does the law of conservation of matter apply to biogeochemical cycles?